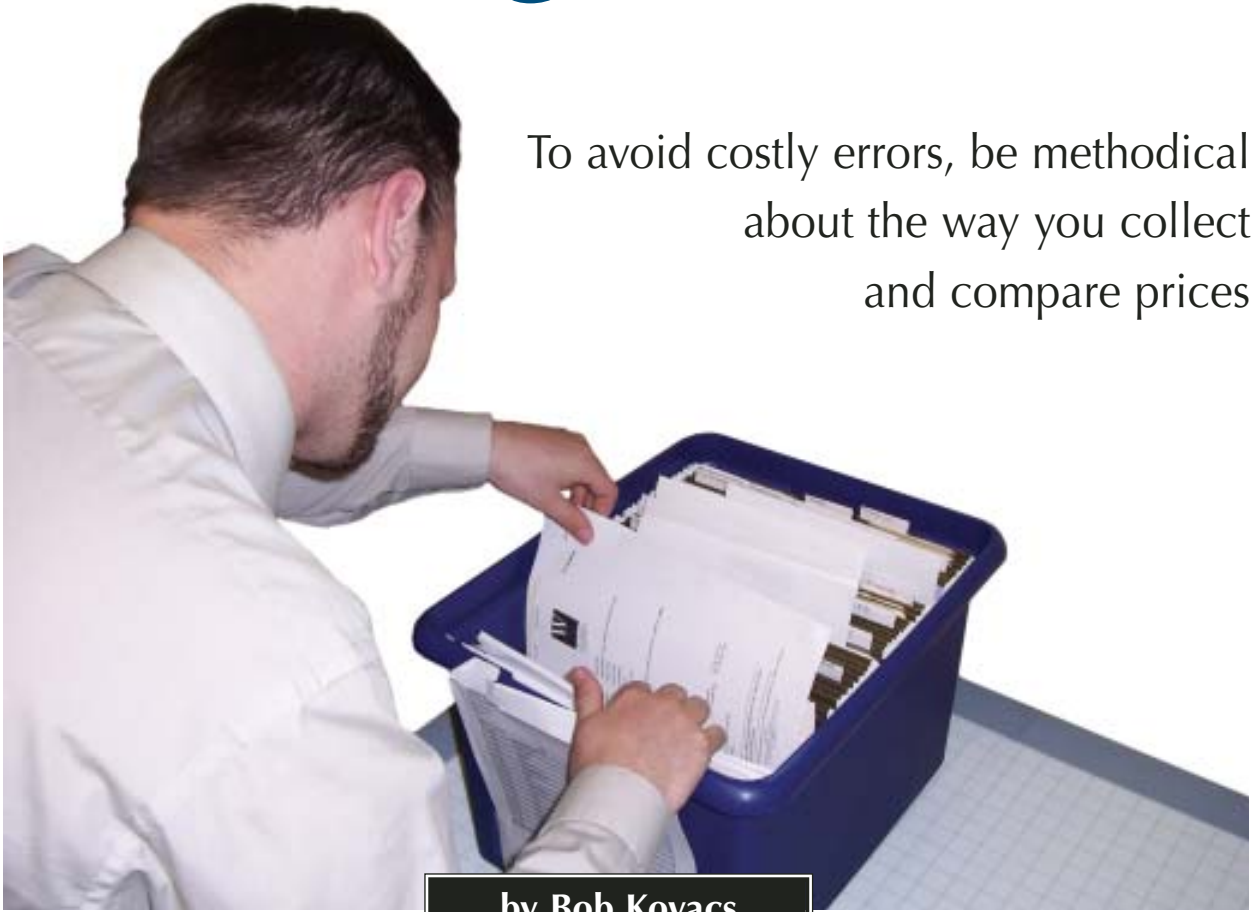


BIDDING Large Jobs



To avoid costly errors, be methodical about the way you collect and compare prices

by Bob Kovacs

Anyone who has ever bid a large job knows the insanity that occurs right before the bid is due: The phone is ringing, quotes are coming over the fax, you're second-guessing your labor rates, and the client needs the price *now*. To some extent, such last-minute chaos may be unavoidable. But by developing a systematic approach to bidding, you can prevent the kinds of mistakes that could cause you to lose money or stop you from getting the job.

What Is Large?

So, what exactly is a large job? For the purposes of this article, it's any job that requires input on pricing from more sources than you can count on one hand. You could be bidding competitively against other contractors or generating the price for a job you already have. Either way, many pieces must come together,

so you need to use a format that allows you to track prices from subs and suppliers, compare them apples-to-apples, and assemble them into a complete bid.

The example we'll use here is a bid for a large, high-end kitchen remodel. The same process works for additions, new homes, commercial buildings, and any other type of project.

Creating Bid Packages

It's important to be organized when assembling bids, because a single omission or miscommunication can cost you a lot of money. Subs and suppliers will give you prices, but those prices may not represent what you are trying to build. This could put you out of the running to get the job, or it could cause you to commit to a price that is too low to make money on.

The first step in organizing the pricing process is to

Master Sheet

Johnson Kitchen Renovation
123 Main Street, Anytown, NJ 08800

Bid Due: 7/1/05, 12 noon

BP	Description	Material	Labor	Sub	Bid Taker
1	Demolition		XXX		Bill
2	Framing		XXX		Bill
3	Framing Materials	XXX			Bill
4	Insulation			XXX	Bill
5	Drywall			XXX	Bill
6	Paint and Wallcoverings			XXX	Jane
7	Interior Trim and Doors- Install	XXX			Jane
8	Interior Trim and Doors- Labor		XXX		Jane
9	Cabinets			XXX	Jane
10	Flooring			XXX	Jane
11	Countertops			XXX	Jane
12	Plumbing			XXX	Bill
13	Electrical			XXX	Bill
14	HVAC			XXX	Bill
15	Appliances			XXX	Bill

Figure 1. Each bid package is listed on the master sheet and will be separately priced and tracked. On this project, the sub's prices include material and labor. Since carpentry is being done in-house, there are separate entries for material and labor for framing and trim.

break the project into bid packages, logical pieces that are small enough to be manageable. Some packages will be obvious because they relate to specific trades. Others could be broken out a number of ways. You need to ask yourself a series of questions: Which trades will we sub and which will we do in-house? Which subs will provide material and labor and which will provide labor only? Where will we buy the materials?

Each one of these items — in-house labor by trade, subcontractor bids, and material quotes — will become a separate bid package.

A place for everything. As soon as I know what the bid packages will be, I write each one on an individual sheet of paper, give it a number, and put it in a manila folder. Keeping them in numerical order, I put each of the folders into a hanging file in a “bid box.” The actual box could be anything; I like to use a plastic file-storage box because it's cheap and portable.

I also create a master sheet — a list of all the bid packages — and place it at the very front of the box (see Figure 1). The process of creating a bid box may seem fundamental, but the only way to stay organized while you bid is to start out that way. When prices come in from subs and suppliers, there will be ready-made places for all of them to go.

Developing Scopes of Work

Once the project is broken into bid packages, it's time to determine the scope of work for each one and to write it on a “scope sheet” (see “Detailing Your Scope of Work,” *Business*, 3/03). Each scope sheet lists all the items to be included in or excluded from the price for that package. Items specific to the trade in the bid package are listed toward the top, while general items (which apply to all trades) like cleanup, insurance, and taxes are listed near the bottom (Figure 2, next page).

What is covered. The scope sheet in Figure 2 is for the drywall package on a

SCOPE SHEET				ABC BUILDERS	
Johnson Kitchen Renovation 123 Main Street, Anytown, NJ 08800				555 Oak Street Anytown, NJ 08800	
Bid Due: 7/1/05, 12 noon					
KPI #	Description	PROJECT ESTIMATE AMOUNT	ABC DRYWALL 732-555-1234 ART	TONY'S DRYWALL 732-555-7896 TONY	XYZ DRYWALL 732-555-1982 XAVIER
5	Drywall	\$4,750			
<input checked="" type="checkbox"/>	Check List				
<input checked="" type="checkbox"/>	Floor plans dated 1/24/05				
<input checked="" type="checkbox"/>	Materials included (board, mud, bead, etc)				
<input checked="" type="checkbox"/>	Three coats and sanding				
<input checked="" type="checkbox"/>	Touch-up after primer and trim				
<input checked="" type="checkbox"/>	Vacuum/mop after sanding				
<input checked="" type="checkbox"/>	Patching at break through into dining room				
<input checked="" type="checkbox"/>	Patching at plumbing re-work				
<input checked="" type="checkbox"/>	Ten 5"x5" patches for electrical homeruns				
<input checked="" type="checkbox"/>	Caulk corners prior to painting	N/BP#6			
<input checked="" type="checkbox"/>	Loading of material into building				
<input checked="" type="checkbox"/>	Clean debris to GC's dumpster				
<input checked="" type="checkbox"/>	GL and WC insurance included				
<input checked="" type="checkbox"/>	Bidder labor-materials only				
	TOTALS	\$4,750			
TOTAL TO BID SUMMARY SHEET					

fictional construction project. Several items are listed that have to do with patching work the GC wants the drywall sub to include. Maybe these items aren't clearly shown on the plans, or, in the case of the patching for electrical home runs, the drywall subs would have no way of knowing that this work was required. Even though the work is subbed, the sheet includes our own preliminary estimate (\$4,750) for what this work should cost. Each company that bids on the drywall will receive a copy of the scope sheet minus our cost estimate and the names of competing bidders.

The goal is to make all the bids contain the same items. If they don't, it will not be possible to make apples-to-apples comparisons. You want to avoid missing any items, because the price

you give the customer should be based on the actual cost to produce the job. The last thing you want is to be part-way through the project and find out that a sub's or supplier's price did not include everything you thought it did.

Where the cost is covered. On the scope sheet, under the column labeled “Project Estimate Amount,” there is a check mark or X next to each scope item. A check mark indicates that this particular item is to be included in this bid package, while an X means the item should be excluded. If an item that is part of the job is excluded from one package, then you need to make sure it is carried somewhere else.

For example, the only item excluded on the scope sheet for drywall is “Caulk corners prior to painting.” According to the notation, this task is part of the

scope for bid package #6, which on this job is painting. This could have come about because the drywallers saw caulking on the list of work they were expected to include and convinced the GC that it would be better for the painter to do it. The drywallers excluded this item from their bid and the GC noted it on the drywall scope sheet. To ensure that the painters know about this, the GC should go to the scope sheet for painting and make sure the task is listed there.

Using scope sheets. When bids come in from a sub or supplier, I write the amount on the appropriate scope sheet. Although I create the scope sheets in Excel, I fill them out mostly by hand. It's much easier to keep them up-to-date that way, especially right before the bid goes in. With a computer, the formulas needed to sum up the columns can get messy, and making a lot of check marks and X's can be awkward. It's quicker and simpler to use a pencil to fill in numbers and check things off.

Once the scope sheets are complete, you should go over them to determine if anything was missed or if there is any overlap in scope. If possible, get someone who did not work on the bid packages to look at them. He or she will come at the task with a fresh perspective and may notice things you overlooked.

More Than One Bid-Taker

In larger companies, it's not uncommon for more than one person to work on a bid. It happens in smaller companies, too, when there is a tight deadline for submitting a particular bid or when many bids must be done in the same period of time.

The number of people it takes to produce a bid depends on the size and complexity of the project. At the company where I work, employees who are not estimators will sometimes be asked to handle "easy" items such as material quotes. I say "easy" because the people collecting pricing will be

working from detailed scope sheets. All they have to do is compare incoming quotes with the sheets. This allows the estimator to concentrate on the trickier parts of the job.

Precautions. If more than one person works on the bid, the master sheet should contain a column to note who's handling which particular packages. When you assign the task of handling bid packages, be sure to group them in a way that makes sense — let one person handle all the mechanical trades or all the finish trades. If a single person handles related trades, he or she is more likely to notice the gaps and overlaps between those bid packages.

For example, if one person handles finish carpentry and painting, he is more likely to notice when the painter excludes such prep work as breaking edges and to be in a position to add this task to the carpenters' scope. Or, say there is going to be a landing half-way up an oak staircase: The person who is pricing the stairs needs to be certain that the flooring contractor knows about the landing and includes strip flooring for it in his bid.

If you do a poor job creating packages, you will almost certainly have trouble assembling the final bid.

Reviewing Scope

Material quotes, subcontractor bids, and estimate sheets for in-house labor will accumulate in the weeks before the bid is due. As the information comes in, we sort it into the proper folders. Several days before the bid is due, we pull out each folder, look at the quotes, and transfer the prices onto the appropriate scope sheet. The scope sheet has a column for each bidder; it contains the name, phone number, and contact person for that company. We take the bidder's pricing and list it below. Then we call each sub or vendor and verify that his price includes (or excludes) every item we asked for (Figure 3, page 5).

What to adjust. When we talk to subs and vendors about what is and

SCOPE SHEET				ABC BUILDERS	
Johnson Kitchen Renovation 123 Main Street, Anytown, NJ 08800				555 Oak Street Anytown, NJ 08800	
Bid Due: 7/1/05, 12 noon					
BID #	Description	PROJECT ESTIMATE AMOUNT	ABC DRYWALL 732-555-1234 ART \$4,750	TONY'S DRYWALL 732-555-7876 TONY \$4,990	XYZ DRYWALL 732-555-1982 XANER \$4,600
5	Drywall				
<input checked="" type="checkbox"/>	Check List	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Per plans dated 1/24/05	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Materials included (board, mud, bead, etc)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Three coats and sanding	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Touch-up after primer and trim	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X +300 (ESTIMATE-BILL)
<input checked="" type="checkbox"/>	Vacuum/mop after sanding	<input checked="" type="checkbox"/>	X +200	X +200 (FROM A+C)	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Patching at break through into dining room	<input checked="" type="checkbox"/>	X +400	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Patching at plumbing re-work	<input checked="" type="checkbox"/>	X +250	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Ten 5"x5" patches for electrical homeowners	<input checked="" type="checkbox"/>	X +250	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Caulk corners prior to painting	X N/BP#6	X	X	<input checked="" type="checkbox"/> -100
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input checked="" type="checkbox"/>	Loading of material into building	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Clean debris to GC's dumpster	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	GI and WC insurance included	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>	Before tax-materials only	<input checked="" type="checkbox"/>			
TOTALS	\$	\$4,750	\$8,300	\$5,190	\$4,800
TOTAL TO BID SUMMARY SHEET					
\$4,800.00					

Figure 3. A few days before the bid is due, the author takes the prices he has received and enters them on the scope sheets. He then adjusts the prices so that

isn't included in their pricing, we keep track of that information by putting a check mark or an X in their column on the scope sheet. (Included items get a check mark; excluded ones get an X.) Next, we review the items line by line and compare our column ("Project Estimate Amount") with those of the subs and vendors. If their check marks and X's correspond to ours, everything is fine. The trouble starts when something we asked for is not there, because then the price is too low. If the bid includes something we didn't ask for, the price will be too high.

Deciding how much. So, where do the adjustments come from? Ideally, the sub can tell me how much to add or deduct for that item. If he can't, for whatever reason (lack of time, didn't see the item at the walk-through, and so on), I try to get one of the other subs to tell me what the item is worth. When that doesn't work, I'll estimate the cost and simply plug in a number of my own.

After I write in the adjustments, I can retotal the columns to get bottom-line prices that include and exclude all the right items. With these numbers in

Figure 4. The author takes the bottom line from each completed scope sheet and enters it onto a summary sheet. Completing the bid is simply a matter of totaling the cost of the bid packages and adding in profit, overhead, and miscellaneous items.

ABC BUILDERS			
Johnson Kitchen Renovation 123 Main Street, Anytown, NJ 08800 SUMMARY SHEET			
BP #	Description	Package Amount	Supplier
1	Demolition	1,250	In-House
2	Framing	2,100	In-House
3	Framing Materials	1,270	BGS
4	Insulation	850	Jiffy Insulators
5	Drywall	4,800	XYZ Corp
6	Paint and Wallcoverings	1,900	Judy's Faux
7	Interior Trim and Doors- Install	2,700	BGS
8	Interior Trim and Doors- Labor	1,450	In-House
9	Cabinets	15,400	MasterCraft Kitchens
10	Flooring	6,790	B&C Stone
11	Countertops	4,975	B&C Stone
12	Plumbing	2,800	Carl's Plumbing
13	Electrical	3,850	BrightLight Electric
14	HVAC	1,200	Arctic-Cool
15	Appliances	9,220	Jack's Appliances
SUBTOTAL- DIRECT WORK		\$ 60,555	
PERMIT ALLOWANCE		\$ 2,000	
SALES TAX		N/A	
CONTINGENCY		\$ 3,100	5%
SUBTOTAL		\$ 65,655	1
MARKUP		\$ 42,676	0.65
TOTAL WITH MARKUP		\$ 108,331	1.65
SELL PRICE TO OWNER		\$ 108,295	

hand, it's possible to compare the bids on an apples-to-apples basis.

In this example, none of the drywall bidders' original prices were correct for the scope requested. The original "low" bidder missed so many items, he was actually the most expensive. This is why it's so important to review the bids carefully. The original low bid (\$4,200) is \$600 less than the final low bid (\$4,800). Multiply that kind of error by 15 bid packages and you can see why so many contractors go out of business every year.

The next step is to take the amount bid by the lowest responsible bidder and write it in the box on the lower left side of the scope sheet. This is the amount that we will carry in our bid for the job.

Once the pricing is adjusted, we put the scope sheets and all of the paperwork (faxed quotes, proposals, takeoff sheets, and the like) back in the bid

box, creating a neat record of the pricing process.


Assembling the Final Bid

The final step in the process is to go to each scope sheet, find the bid amount you plan to use, and transfer it to a summary sheet (Figure 4). The summary sheet is a table that contains a description of each bid package, what we expect to pay for it, and the "supplier" we'll be getting it from. The price for each bid package comes from the lower left corner of the corresponding scope sheet.

Ideally, we can complete the scope review a couple of days before our bid is due to the client. This allows us to summarize the pricing a day before the bid is due and leaves time for one final check of the numbers and scope.

Determining our bid price is simply a matter of totaling the bid-package

amounts and adding the cost of items such as permits and contingencies, plus our markup for profit and overhead. Whereas the scope sheets are filled out by hand, I'll do the summary in Excel because it makes it easier to play "what if" by changing the contingency and markup.

Under this system, if we land the job, it won't be because we blundered and left something out. And now we have an organized package of information with which to set up the job, including a list of materials to order and the items to include in subcontracts. 

Bob Kovacs has more than 15 years of experience managing and estimating residential and commercial construction projects. He moderates the estimating forum at jlconline.com.